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(30) Priority: **15.06.1999 US 333736**

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(54) **Method and apparatus for rendering video**

(57) Multiple Video Graphic Adapters (VGAs) are used to render video data to a common port. In one embodiment, each VGA will render an entire frame of video and provide it to the output port through a switch. The next adjacent frame will be calculated by a separate VGA and provided to an output port through the switch. A voltage adjustment is made to a digital-to-analog converter (DAC) of at least one of the VGAs in order to correlate the video-out voltages being provided by the

VGAs. This correlation assures that the colour being viewed on the screen is uniform regardless of which VGA is providing the signal. A dummy switch receives the video-output from each of the VGAs. When a VGA is not providing information to the output port, the dummy switch can be selected to provide the video-output of the selected VGA a resistance path which matches the resistance at the video port. This allows the video graphics controller to maintain a constant thermal state.

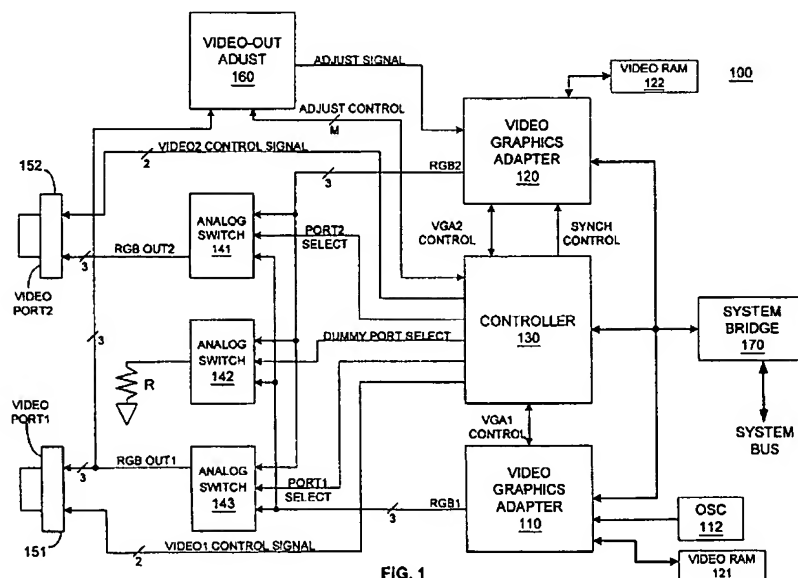


FIG. 1



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## EUROPEAN SEARCH REPORT

Application Number  
EP 00 30 5076

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Y	"SYNCHRONOUS DIGITAL VIDEO SWITCH" IBM TECHNICAL DISCLOSURE BULLETIN, IBM CORP. NEW YORK, US, vol. 34, no. 48, 1 September 1991 (1991-09-01), pages 265-270, XP000189485 ISSN: 0018-8689 * page 265; figure 1 *	1,10,18, 29	G06F3/14
Y	EP 0 579 402 A (LORAL AEROSPACE CORP) 19 January 1994 (1994-01-19) * abstract * * figure 1 *	1,10,18, 29	
A	WO 97 14133 A (CIRRUS LOGIC INC) 17 April 1997 (1997-04-17) * page 5, line 10 - page 7, line 4 * * page 7, line 21 - page 8, line 3 * * figures 1,2 *	1,29	
A	US 5 799 204 A (PESTO JR WILLIAM STEVE) 25 August 1998 (1998-08-25) * column 3, line 9 - line 24 * * column 8, line 15 - line 50 * * figures 4,5 *	1,29	TECHNICAL FIELDS SEARCHED (Int.Cl.7) G06F
A	US 5 185 858 A (EMERY KEVIN A ET AL) 9 February 1993 (1993-02-09) * abstract *	1,29	
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<del>The present search report has been drawn up for all claims</del>			
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>28 August 2001</b>	Examiner <b>FARRICELLA, L</b>
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-18, 29



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LACK OF UNITY OF INVENTION  
SHEET B

Application Number

EP 00 30 5076

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-18,29

A video driver system in which data produced by first and second graphics devices is switched to an output node

2. Claims: 19-26

A method of adjusting video signals originated from different devices in order to match them.

3. Claims: 27,28

A method of providing video signals originated from different devices so that they are provided in different time periods.

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 30 5076

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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28-08-2001

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82